

REMARKS

The Official Action dated June 5, 2003 has been received and its contents carefully noted. In view thereof, claims 17, 18, 49 and 52 have been amended in order to better define that which Applicants regard as the invention. As previously, claims 17-29 and 44-60 are presently pending in the instant application.

Referring now to the Official Action, particularly paragraph 3 thereof, claims 17-29 and 44-60 have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,335,546 issued to Tsuda et al. This rejection is respectfully traversed in that the patent to Tsuda neither discloses nor remotely suggests that which is presently set forth by Applicants' claimed invention.

As the Examiner can readily appreciate, Applicants' claimed invention is directed to a method of forming a device made of semiconductor material having a hexagonal crystal structure, a depression defined by either a plane orientation of $(1,-1,0,n)$ where n is not equal to 0 (typically an incline surface having a 1-101 plane) or its equivalent plane; a depression intentionally formed by a projection which in accordance with claim 44 is intentionally formed by etching. The method of forming the device further includes generating defects in the direction vertical to a projection defined by either a plane orientation of $(1,-1,0,n)$ where n is not equal to 0 or its equivalent plane and causing the defects to collect into one area with the effect of reducing the concentration of defects in a substrate.

With respect to the Tsuda et al. reference, this reference merely discloses a GaN semiconductor layer in which a depression formed by etching and a lateral surface of a projection are substantially vertical to the main surface of a substrate. Consequently, the depression and the lateral surface of the projection are defined by a plane orientation of $(1,-1,0,0)$, which is clearly different from the plane of orientation of the present invention which is $(1,-1,0,n)$ where n is not equal to 0.

Additionally, as the Examiner can readily appreciate from column 19, lines 16-30, with reference to Fig. 9D, the Tsuda et al. reference cites that the $(1,-1,0,1)$ plane is "spontaneously formed." Clearly, such a feature neither discloses nor renders obvious the limitation of Applicants' claimed invention in accordance with Claim 17 that the depression

forming step is intentionally formed such that an inside face of said depression is defined by either a plane having a plane orientation of $(1,-1,0,n)$ where n is an arbitrary number other than 0 or its equivalent plane. Such limitation is also set forth in each of independent claims 18, 49 and 52. Accordingly, in that the Tsuda et al. reference fails to disclose or remotely suggest intentionally forming the depression and the projection having a plane orientation of $(1,-1,0,n)$ where n is not equal to 0 as set forth in each of independent claims 17, 18, 49 and 52 as well as the fact that the Tsuda et al. reference fails to disclose the step of exposing either a plane having a plane orientation of $(1,-1,0,n)$ where n is an arbitrary number, or its equivalent plane by subjecting a part of said first semiconductor layer to an etching process as recited in independent claim 44, it is respectfully submitted that Applicants' claimed invention as set forth in independent claims 17, 18, 44, 49 and 52 as well as those claims which depend therefrom are in condition for allowance.

While the Examiner refers to Figs. 9C-9E; column 19, line 42 through column 20, line 52, throughout the Official Action as setting forth the limitation that the plane orientation of $(1,-1,0,n)$ where n is an arbitrary number other than 0 or its equivalent plane, Applicants respectfully submit that this portion of the specification to Tsuda et al. fails to support the position taken by the Examiner. Tsuda et al. does not anticipate Applicants' claimed invention for the reasons discussed hereinabove.

With respect to the Examiner's response to Applicants' arguments filed March 14, 2003, it is respectfully submitted that the arguments set forth hereinabove are commensurate with the scope of the presently pending claims and clearly recites limitations set forth in each of the several independent claims which are nowhere found in the teachings of Tsuda et al. Accordingly, it is respectfully submitted that Applicants' claimed invention as set forth in claims 17-29 and 44-60 distinguish over the teachings of Tsuda et al. and are in proper condition for allowance.

Therefore, it is respectfully requested that the rejection of record be reconsidered and withdrawn by the Examiner, that claims 17-29 and 44-60 be allowed and that the application be passed to issue.

Should the Examiner believe a conference would be of benefit in expediting the prosecution of the instant application, he is invited to telephone counsel to arrange such a conference.

Respectfully submitted,



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